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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/751,464	01/06/2004	Jung-hoc Kim	030681-617	2368
21839	7590	09/14/2005	EXAMINER	
BUCHANAN INGERSOLL PC (INCLUDING BURNS, DOANE, SWECKER & MATHIS) POST OFFICE BOX 1404 ALEXANDRIA, VA 22313-1404			NGUYEN, LINH V	
			ART UNIT	PAPER NUMBER
			2819	

DATE MAILED: 09/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/751,464	Applicant(s) KIM ET AL.	
	Examiner Linh V. Nguyen	Art Unit 2819	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 6, 8 - 13 and 15 - 18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3 - 6, 10, and 11 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 8, 9, 12, 13, 15 and 17 is/are rejected.
- 7) ☒ Claim(s) 16 and 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response applicant's amendment filed on 7/13/05. Claims 1, 3, 4, 8, 10, and 11 have been amended. Claim 7 and 14 has been canceled. Claims 1 – 6, 8 - 13 and 15 – 18 are pending on this application.

Specification

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 2, 8, 9, 13, 15 and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by De Queiroz Pub.No.: US 2004/0015697.

Regarding claim 1, Fig. 1 of Queiroz discloses a method of encoding digital data, the method comprising: mapping a plurality of samples constituting the digital data onto bit planes (Fig. 3); and selectively encoding all of bit-sliced data of the bit planes from

bit-sliced data composed of most significant bits (Fig. 3 [MSB]) mapped onto the bit planes to bit-sliced data composed of least significant bits (Fig. 3 [LSB]) in consideration of an encoding efficiency or according to a transformed bit-sliced encoding method (paragraph 0039), wherein side information (Fig. 3, paragraph 0039) corresponding a plurality of layers (Fig. 3 disclosing a multiple layers of bit planes) and a plurality of encoded quantization samples (Bit planes of fig. 3 disclosing multiple of quantization samples) are packaged (Fig. 3) into a heirarchical structure (paragraph 0038 – 0039 disclosing heirarchical structures from MSB bit plane to LSB bit plane of compression).

Regarding claim 2, Queiroz further comprising packaging the encoded samples into a hierarchical structure (Page 4, lines 34 – 39 of paragraph 0038).

Regarding claim 8, the claim incorporated substantial the same subject matter as of claim 1, and rejected along the same rationale.

Regarding claim 9, the claim incorporated substantial the same subject matter as of claim 2 and rejected along the same rationale.

Regarding claim 13, wherein the encoding unit arithmetic-codes the bit-sliced data (lines 11 – 13 of paragraph 0039).

Regarding claim 15, Fig. 7 of de Queiroz discloses a method of decoding digital data, the method comprising: analyzing a bit stream to obtain at least one encoded bit-sliced data corresponding to a predetermined bit plane and side information encoded (Fig. 8) according to a transformed bit-sliced encoding method (Fig. 3) decoding bit-sliced data corresponding to the predetermined bit plane with reference to the bit-sliced

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data and the side information (paragraph 0044) and bit-combining the decoded bit-sliced data to obtain samples constituting the digital data (paragraph 0045, 0049).

Regarding claim 17, the claim incorporated the same subject matter as of claim 15 and rejected along the same rationale.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 12 are rejected under 35 U.S.C. 103(a) as being unpatentable Queiroz as applied to claim 8 above, in view of Bruekers U.S. Patent No. 6,778,965.

Fig. 1 [130] of Queiroz as applied to claim 8 above, fails to disclose the encoder is select from Huffman-codes.

Fig. 8 of Bruekers discloses an encoder system, and the encoder is selected from Huffman-codes (Col. 7 lines 58 – 60).

Queiroz and Bruekers are common subject matter for data encoding. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporated the Huffman or arithmetic coding of Bruekers's encoder into the encoder of Queiroz for the purpose of providing lossless coding and a significant data reduction can be obtain (Bruekers, Col. 2 lines 59 – 62).

Allowable Subject Matter

7. Claims 16 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 3 - 6, 10, and 11 are allowed.

Cited References

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Contact Information

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Linh Van Nguyen whose telephone number is (571) 272-1810. The examiner can normally be reached from 8:30 – 5:00 Monday-Friday. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Robert Pascal can be reached at (571) 272-1769. The fax phone numbers for the organization where this application or proceeding is assigned are (571-273-8300) for regular communications and (571-273-8300) for After Final communications.

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Linh Van Nguyen

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A handwritten signature in black ink, appearing to read "Linh Van Nguyen". The signature is written in a cursive, flowing style with a large initial "L" and "V".